

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application. Claims listed below that are cancelled are done so without disclaimer or prejudice.

Listing of Claims:

1-13. Cancelled

14. (Currently Amended) A device for coupling ultrasonic waves into a solid body to be ultrasonically probed via a boundary surface located outside a closed volume comprising:

including at least one ultrasonic-wave transducer unit, which couples ultrasonic waves into the solid body via a gaseous coupling medium provided between the at least one ultrasonic-wave transducer unit and the boundary surface, wherein the ultrasonic waves generated by the at least one ultrasonic-wave transducer unit are directed into the closed volume, which is provided with at least a first opening and a second opening;

the closed volume being bordered by a housing, in which the at least one ultrasonic-wave transducer unit is contained, including a housing surface spaced from the boundary surface which defines and extends outward from the second opening to define a channel between the housing surface and the boundary surface; and

a source of gas providing a flow of gas providing-producing an
overpressure inside the closed volume which is directed into an interior of the closed
volume through the first opening, and which exits the closed volume through the
second opening which directly faces the boundary surface and flows through the
channel outward from the second opening while contacting the housing and
boundary surfaces.

15. (Currently Amended) The device according to claim 14, wherein the
closed volume is bordered by a housing in which the at least one ultrasonic-wave
transducer unit is contained to cause the ultrasonic waves to be directed at the
second opening directly facing the boundary surface.

16. (Previously Presented) The device according to claim 14, wherein the
flow of gas is air.

17. (Previously Presented) The device according to claim 16, wherein the
flow of air is compressed air.

18-19. Cancelled

20. (Previously Presented) The device according to claim 17, comprising a
compressed air line connected to the first opening.

21-28. Cancelled

29. (Currently Amended) The device according to claim 14, comprising sound conducting means for coupling ultrasonic waves inside the closed volume toward and through the second opening.

30. Cancelled

31. (Currently Amended) The device according to claim 16, comprising sound conducting means for coupling ultrasonic waves inside the closed volume toward and through the second opening.

32. (Currently Amended) The device according to claim 17, comprising sound conducting means for coupling ultrasonic waves inside the closed volume toward and through the second opening.

33. (Currently Amended) The device according to claim 20, comprising sound conducting means for coupling ultrasonic waves inside the closed volume toward and through the second opening.

34. Cancelled

35. (Previously Presented) The device according to claim 29, wherein the sound conducting means separates a first spatial zone inside the closed volume, in which ultrasonic waves propagate without interference with the flow of gas, and a second spatial zone in which the gas flow is directed.

36. (Previously Presented) The device according to claim 29, wherein the sound conducting means comprises a funnel which guides the ultrasonic waves from the at least one ultrasonic-wave transducer unit to the second opening without being impeded by the flow of gas.

37. (Previously Presented) The device according to claim 14, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

38. (Previously Presented) The device according to claim16, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

39. (Previously Presented) The device according to claim17, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

40. (Previously Presented) The device according to claim20, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is

created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

41. (Previously Presented) The device according to claim 14, wherein the at least one ultrasonic-wave transducer unit comprises a transmitter and a receiver.

42. Cancelled

43. (Previously Presented) The device according to claim 29, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

44. (Previously Presented) The device according to claim 31, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is

created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

45. (Previously Presented) The device according to claim 32, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

46. (Previously Presented) The device according to claim 33, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

47. (Previously Presented) The device according to claim 35, wherein the flow of gas passes through the second opening facing the boundary surface and flows between an upper side of the housing and the boundary surface and the boundary surface and upper surface extends radially relative to the second opening

to define the channel, and a vacuum draws the housing toward the boundary surface to create a gas cushion in the channel of a thickness at which a force of attraction is created by the vacuum and a force of repulsion present due to a mass impulse of the flow of gas between the housing and the boundary surface are in equilibrium.

48. (Currently Amended) The device in accordance with claim 14 wherein:

the channel is of substantially uniform spacing measured between the housing and boundary surfaces.